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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,302	11/14/2001	Ching-Shan Lu	LUCH3004/EM/7372	6904

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EXAMINER

RAO, SHEELA S

ART UNIT	PAPER NUMBER
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2125

2

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,302

Applicant(s)

LU ET AL.

Examiner

Sheela Rao

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) 1-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-7 are presented for examination.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: on page 1, line 6 "multiple discharge-servo curve control method"; on page 3, line 25 "adopt the program calling ...", page 6, line 18 "discharge machining NO.n".
 - b. In addition to the aforesaid examples, the specification is replete with grammatical and spelling errors. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
 - c. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Appropriate correction is required.

Drawings

3. Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. The Brief Description portion of the disclosure states that the illustrations of figures 1, 3, and 4 are of "known" aspects of the invention. Figure 2 is also included in this objection for its placement in the sequence of the drawings. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. The claims are objected for containing grammatical and idiomatic inconsistencies. Examiner appreciates that the Applicant is allowed to be his/her own lexicographer. However, grammatical and idiomatic language in the instant claims present difficulties in the interpretation and reading of the claimed features. Applicant is advised to make necessary corrections.
5. Claims 2-6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It is noted that dependent claims 2-6 are stated as comprising the contents of claim 1. However, the way in which each of these dependent limitations further enhances or limits the claimed features of claim 1 has not been clearly stated.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following are examples of limitations in the instant claim language that lack enablement:

Claim 1: The process and/or means used to "input all of the pairs of the gap-voltage deviation and its correspond[ing] machine precession rate" in limitation (1);

"[D]efine the numerical value of the discharge-servo curve parameters" and how this is "depend[ent] on the processing conditions" in limitation (2);

How the "access[ing]" of limitation (3) is carried through;

The process and/or means used to "input the processing instruction" and what is the "processing instruction and the discharge-servo curve instruction" as well as what the "processing program" comprises in limitation (4);

What the "program node for judging the processing instruction" is in limitation (5);

How will the "discharge-servo curve data be accessed from the ... database" as per limitation (6).

The limitations of claims 2-6 are rejected for including the aforesaid limitations of claim 1.

8. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The connectivity and/or mode of communication/accessing between the storage unit, setting unit, reading unit, program unit, and the instruction/judging unit is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1: line 5 – "a multiple discharge-servo curve database" – does multiple apply to discharge or database?

line 8 – "the required" – what is this a value or a curve?

line 12 – “the discharge-servo curve database” – if it is multiple databases then which one (see question for line 5)?

line 13 – “record it into the ... controller” – how is the data to be recorded into a controller?

line 23 – “the discharge-servo curve database” – see question for line 12; and “stored insider ... controller” – how is this to be stored inside a controller?

Claim 5: line 5 – “the discharge-servo curve database” – see question for Claim 1 line 12.

Claims 2-4 and 6 are rejected for the same reasons as claim 1 as they include the limitations of claim 1.

11. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

12. Claims 1-7 recite limitations where here is insufficient antecedent basis for this limitation in the claim.

Claim 1: line 3 – “the pairs”; “the gap-voltage deviation”

line 4 – “ the discharge-servo curvature”

line 6 – “the numerical value”; “the discharge-servo curve parameters”

line 7 – “the processing conditions”

line 9 – “the discharge-servo curve”

line 12 – “discharge-servo curve database”

line 14 – “the processing instruction”; “the discharge-servo curve instruction”

line 15 – “the processing program”

line 22 – “ the nth discharge-servo curve data”

Claim 2: line 5 – “ the real discharge machining records” ; “the different electrode material”

Claim 3: line 5 – “ the different work-piece material”

Claim 4: line 5 – “the different cutting solution material”

Claims 5 and 6 are rejected for the same reasons as that of claim 1 as they include the limitations of claim 1.

Claim 7: line 3 – “the discharge-servo curve data”

line 4 – “the numerical value”

line 10 – “the machining program” ; “the editing of the discharge-servo curve instruction”

line 11 – “the initiation of the machining program”

line 12 – “the work-piece machining”

line 15 – “the processing instruction”; the discharge-servo curve instruction”

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Johanson, et al. (US Patent No. 4,365,300).

Johanson, et al. teach of a method and apparatus for the machine control of a tool and workpiece so as to perform desired electrical discharge machine operations on the workpiece in accordance with a polar coordinate frame of reference. The method used by Johanson, et al. calls for the processing of input data to derive vector magnitude data, angle and axis data. These operations are precisely controlled by a multi-processor system that uses operator inputs, position and gap detection circuitry, and display circuitry. See figure 1 and the features as taught in column 3: lines 14-68.

The disclosure of Johanson, et al. is relied upon as teaching the limitations of the instant invention as the instant invention can be best understood and interpreted.

Art Unit: 2125

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN RE28,564 E

Inoue, Kiyoshi

USPN 4,071,729 A

Bell, Jr., Oliver A.

USPN 5396040 A

Girardin, Roger

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (703) 305-9766. The examiner can normally be reached Tuesday - Thursday from 9:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538.

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks
Washington, D.C. 20231**

or faxed to:

(703) 872-9306 for Official Communications

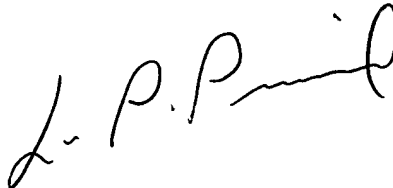
hand-delivered responses should be brought to:

**Receptionist - Sixth Floor
Crystal Park II, 2121 Crystal Drive, Arlington, Virginia**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Sheela S. Rao
June 15, 2004



**LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**